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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,815	08/27/2001	Young-sig Kwon	1293.1227	1100

21171 7590 04/14/2005		EXAMINER
STAAS & HALSEY LLP		DINH, TAN X
SUITE 700		

ART UNIT	PAPER NUMBER
2653	

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DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/938,815	KWON, YOUNG-SIG
	Examiner	Art Unit	
	TAN X. DINH	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 February 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

1)   The amendment filed 2/01/2005 is acknowledged. Claim 17
has been canceled.

2)   The I.D.S filed 2/24/2005 has been considered by the
Examiner. However, the Japan and/or foreign document(s), if they
have not been written in English, are considered to the extent that
could be understood from the English Abstract and the drawings.

Form PTO-1449 or PTO/SB/08 is(are) attached herein.

3)   The indicated allowability of claims *1-16* are withdrawn in
view of the newly discovered reference(s) to **NONAKA(5,471,441)**.
Rejections based on the newly cited reference(s) follow.

4)   The following is a quotation of the appropriate
paragraphs of 35 U.S.C. 102 that form the basis for the rejections
under this section made in this Office action:

A person shall be entitled to a patent unless -

5)   (b) the invention was patented or described in a printed publication in this
or a foreign country or in public use or on sale in this country, more than one
year prior to the date of application for patent in the United States.

6)   Claims *1,2,4,8,9,11-16* are rejected under 35 U.S.C. 102(b) as
being anticipated by **NONAKA(5,471,441)**.

NONAKA discloses a method for provide sub-code data to a host computer in optical disk drive so that data from a pick-up is reproduced through a buffer, as claimed in claims *1,12-16*, comprising the step of:

Storing data and sub-code data read from the optical disk into a buffer memory during reproducing mode (Fig.3, step S50. and column 2, lines 27-30. See figure 5, RAM 7A for storing data and sub-code during reproducing mode. See also figure 13, and column 15, lines 20-30);

Reading data from the buffer to the host computer (Fig.3, S50, S51, column 2, lines 26-30. See also figure 13, S42, S43);

Setting the sub-code data in response to data being output from the buffer (Fig.3, S50, S51, see column 2, lines 30-51. See figure 13, steps S42, S43, S44 and S54 and column 15, lines 20-53. In this case, the sub-code data is updated and set in response to the data output from buffer memory RAM 7A);

Transmitting the set sub-code data to the host computer when sub-code data is requested during reproducing mode (Fig.3, S50, S51, S52, S53. See figure 13, S45, S46 and S47. In this case, the data and the set sub-code are transmitted out of buffer memory to the host computer, see column 2, lines 27-52 and column 15, lines 20-53 for completing the reproducing process).

As to claims *2,4,8 and 9*, the track information, relative address and absolute address are inherent in every CD, CD-R or CD-ROM (see column 1, lines 12-39. It is noted that, these elements are

essential elements for providing information about the number of

tracks, the reproducing time for each track, the reproducing time

for entire disk, etc.,

and has been recorded in table-of-content (TOC) of CD, CD-R or CD-

ROM).

As to claim 11, NONAKA shows setting of the sub-code data

comprises setting the sub-code data using a microcomputer through a

decoder which accesses the buffer (Fig.5, micro-computer 7,

decoder 6), and the transmitting of the set sub-code data

comprises transmitting the set sub-code data from the microcomputer

through the decoder to the host computer (Fig.5, micro-computer 7,

decoder 6).

7)   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the
> time the invention was made to a person having ordinary skill in the art to
> which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

8)   Claims *3,5-7 and 10* are rejected under 35 U.S.C. 103(a) as

being unpatentable over **NONAKA (5,471,441)**.

NONAKA discloses all the subject matter as claimed in claim 3,

except to specifically show that the sub-code is set when data of

one sector is output from buffer. It would have been obvious to

someone within the level of skill in the art at the time of the

invention was made to set the sub-code in NONAKA's optical disk

player when data of one sector is output from buffer memory, the

rationale is as follows:

The sub-code data is allowed the user to know the position of

an actual reproduced block and a proceeding state, that is,

information recorded on the optical disc, is stored in the data

region, a relative address allows the user to know the reproduction

time (or the proceeding time) of a corresponding melody with

respect to data recorded in a sector, and an absolute address for

allowing the user to know a time, for which corresponding data is

reproduced, (or a proceeding accumulating time) among the

reproduction time of the entire disc, are stored in the data

region, therefore, the user can know the proceeding state of the

currently reproduced data through the sub-code data recorded in a

data region. The optical disk player of NONAKA setting the sub-

code whenever data is output from buffer memory, the data could be

one track, one sector or more. Thus, one of ordinary skill in the

art at the time of the invention was made would have been motivated

to set the sub-code in NONAKA's optical disk player whenever the

data output is one sector as claimed.

As to claim 5, NONAKA discloses all the subject matter

claimed, *except that* the sub-code has been set by updating the

relative address and absolute address (Fig.13, S43) *rather than*

increasing the relative address and absolute address, it would have been obvious to someone within the level of skill in the art at the time of the invention was made to set the sub-code by increasing the relative address and absolute address as claimed, the rationale is as follows:

The absolute address is information showing corresponding reproduction time among the entire reproduction time of the disc, the relative address is information showing reproduction time of a corresponding melody when a plurality of melodies are recorded in the disc. If data of one sector is output from buffer memory the relative address and the absolute address must increase by one in order to update the sub-code, if data of two sector is output from buffer memory the relative address and the absolute address must increase by two in order to update the sub-code and so on. Thus, whenever data of one sector is output from the buffer, the microcomputer sets the relative address and the absolute address increases by one to update the sub-code data, therefore, one of ordinary skill in the art at the time of the invention was made would have been motivated to set the sub-code by increasing the relative address and the absolute address corresponding the amount of data output from buffer memory.

As to claims 6 and 7, NONAKA shows resetting the relative address when data output is the last sector (Fig.13, S46, S47. In this case, the last melody (last track) is detected and resetting the sub-code and start a new reproducing process. It is also noted

that, the last sector corresponding to melody (last track) is determined based on the table-of-content (TOC), see column 1, lines 12-55).

As to claim 10, the step of continuously checking whether the buffer is full during the reproduction mode, setting the optical disc drive to a temporary pause mode and moving the pick-up to a temporary pause region of the disc in response to the buffer being full and the transmitting of the set sub-code data comprises transmitting the set sub-code data to the host computer when the sub-code data is requested from the host computer during the temporary pause mode are old and widely used in the art (evident at applicant's prior art figures 2 and specification, page 2, paragraph [0010]-[0012]).

9)   Applicant's arguments with respect to claims *1-16* have been considered but are moot in view of the new ground(s) of rejection.

10)   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **TAN X. DINH** whose telephone number is (571) 272-7586. The examiner can normally be reached on **Monday - Friday, 8:00AM - 5:30PM**.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of
this application or proceeding should be directed to the
receptionist whose telephone number is (703)305-3900.

Information regarding the status of an application may be
obtained from the Patent Application Information Retrieval (PAIR) system.
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you have questions on access to the Private PAIR system, contact the
Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

TAN DINH
PRIMARY EXAMINER
April 13, 2005